

22. A method of detecting the presence of a target polynucleotide in a test sample, said method comprising:

- (a) contacting the test sample with at least one purified polynucleotide; and
(b) detecting the presence of said target polynucleotide in the test sample wherein the purified polynucleotide has at least 95% identity over the entire length of a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:8, and SEQ ID NO:10.

23. The method of claim 22, wherein said target polynucleotide is attached to a solid phase prior to performing step (a).

24. A method for detecting target mRNA in a test sample, comprising:

- (a) performing reverse transcription with at least one primer in order to product cDNA;
(b) amplifying the cDNA obtained from step (a) using oligonucleotides as sense and antisense primers to obtain an amplicon; and
(c) detecting the presence of said amplicon,
wherein the oligonucleotides utilized in steps (a) and (b) have at least 95% identity over the entire length of a sequence selected from the group consisting of SEQ ID NOS:1-12.

25. The method of claim 24 wherein said test sample is reacted with a solid phase prior to performing one of steps (a), (b) or (c).

26. The method of claim 24, wherein said detection step comprises utilizing a detectable label capable of generating a measurable signal.

27. A method of detecting a target polynucleotide in a test sample suspected of containing said target polynucleotide, comprising:

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- (a) contacting said test sample with at least one oligonucleotide as a sense primer and with at least one oligonucleotide as an anti-sense primer and amplifying to obtain a first-stage reaction product;
 - (b) contacting said first stage reaction product with at least one other oligonucleotide to obtain a second stage reaction product, with the proviso that the other oligonucleotide is located 3' to the oligonucleotides utilized in step (a) and is complementary to said first stage reaction product; and
 - (c) detecting said second stage reaction product as an indication of the presence of the target polynucleotide, wherein the oligonucleotides utilized in steps (a) and (b) have at least 95% identity over the entire length of a sequence selected from the group consisting of SEQ ID NOS:1-12.
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28. The method of claim 27, wherein said test sample is reacted with a solid phase prior to performing one of steps (a), (b), or (c).

29. The method of claim 27, wherein said detection step comprises utilizing a detectable label capable of generating a measurable signal.

30. The method of claim 29, wherein said detectable label is reacted with a solid phase.

31. A method of detecting the presence of a target polynucleotide in a test sample, said method comprising:

- (a) contacting the test sample with at least one isolated polynucleotide; and
 - (b) detecting the presence of said target polynucleotide in the test sample
- wherein the isolated polynucleotide is selected from the group consisting of SEQ ID NOS:1-12 and complements thereof.

32. The method of claim 31, wherein said target polynucleotide is attached to a solid phase prior to performing step (a).

33. The method of claim 31, wherein the presence of said target polynucleotide in said test sample is indicative of urinary tract cancer.

34. A method for detecting target mRNA in a test sample, comprising:

- (a) performing reverse transcription with at least one primer in order to product cDNA;
 - (b) amplifying the cDNA obtained from step (a) using oligonucleotides as sense and antisense primers to obtain an amplicon; and
 - (c) detecting the presence of said amplicon,
- wherein the oligonucleotides utilized in steps (a) and (b) are selected from the group consisting of SEQ ID NOS:1-12 and complements thereof.

35. The method of claim 34 wherein said test sample is reacted with a solid phase prior to performing one of steps (a), (b) or (c).

36. The method of claim 34, wherein said detection step comprises utilizing a detectable label capable of generating a measurable signal.

37. The method of claim 34, wherein the presence of said amplicon is indicative of urinary tract cancer.

38. A method of detecting a target polynucleotide in a test sample suspected of containing said target polynucleotide, comprising:

- (a) contacting said test sample with at least one oligonucleotide as a sense primer and with at least one oligonucleotide as an anti-sense primer and amplifying to obtain a first-stage reaction product;

- (b) contacting said first stage reaction product with at least one other oligonucleotide to obtain a second stage reaction product, with the proviso that the other oligonucleotide is located 3' to the oligonucleotides utilized in step (a) and is complementary to said first stage reaction product; and
- (c) detecting said second stage reaction product as an indication of the presence of the target polynucleotide, wherein the oligonucleotides utilized in steps (a) and (b) are selected from the group consisting of SEQ ID NOS: 1-12 and complements thereof.

39. The method of claim 38, wherein said test sample is reacted with a solid phase prior to performing one of steps (a), (b), or (c).

40. The method of claim 38, wherein said detection step comprises utilizing a detectable label capable of generating a measurable signal.

41. The method of claim 40, wherein said detectable label is reacted with a solid phase.

42. The method of claim 38, wherein the presence of said second stage reaction product is indicative of urinary tract cancer.

43. A method of detecting the presence of a target polynucleotide in a test sample, said method comprising:

- (a) contacting the test sample with at least one isolated DNA molecule; and
 - (b) detecting the presence of said target polynucleotide in the test sample
- wherein the DNA molecule is selected from the group consisting of SEQ ID NOS:1-12 and degenerate codon equivalents thereof.

44. The method of claim 43, wherein said target polynucleotide is attached to a solid phase prior to performing step (a).

45. The method of claim 43, wherein the presence of said target polynucleotide in said test sample is indicative of urinary tract disease.

46. A method for detecting target mRNA in a test sample, comprising:
(a) performing reverse transcription with at least one primer in order to product cDNA;
(b) amplifying the cDNA obtained from step (a) using oligonucleotides as sense and antisense primers to obtain an amplicon; and
(c) detecting the presence of said amplicon,
wherein the oligonucleotides utilized in steps (a) and (b) are selected from the group consisting of SEQ ID NOS:1-12 and degenerate codon equivalents thereof.

47. The method of claim 46 wherein said test sample is reacted with a solid phase prior to performing one of steps (a), (b) or (c).

48. The method of claim 46, wherein said detection step comprises utilizing a detectable label capable of generating a measurable signal.

49. The method of claim 46, wherein the presence of said amplicon is indicative of urinary tract disease.

50. A method of detecting a target polynucleotide in a test sample suspected of containing said target polynucleotide, comprising:
(a) contacting said test sample with at least one oligonucleotide as a sense primer and with at least one oligonucleotide as an anti-sense primer and amplifying to obtain a first-stage reaction product;
(b) contacting said first stage reaction product with at least one other oligonucleotide to obtain a second stage reaction product, with the proviso that the other oligonucleotide

is located 3' to the oligonucleotides utilized in step (a) and is complementary to said first stage reaction product; and

(c) detecting said second stage reaction product as an indication of the presence of the target polynucleotide, wherein the oligonucleotides utilized in steps (a) and (b) are selected from the group consisting of SEQ ID NOS: 1-12 and degenerate codon equivalents thereof.

51. The method of claim 50, wherein said test sample is reacted with a solid phase prior to performing one of steps (a), (b), or (c).

52. The method of claim 50, wherein said detection step comprises utilizing a detectable label capable of generating a measurable signal.

53. The method of claim 52, wherein said detectable label is reacted with a solid phase.

54. The method of claim 50, wherein the presence of said second stage reaction product is indicative of urinary tract disease.

REMARKS

Claims 17-19 are rejected under 35 USC 112, first paragraph as containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. These claims have been cancelled.

The Examiner states that undue experimentation would be required to use the polynucleotides of the instant invention for the detection of urinary tract disease. Applicant vigorously disagrees. The Examiner states that there are no indications in the specification that normal urinary tract tissue does not express the polynucleotides of SEQ ID NOS:1-12. Applicant seeks to clarify that normal urinary tract tissue does express the